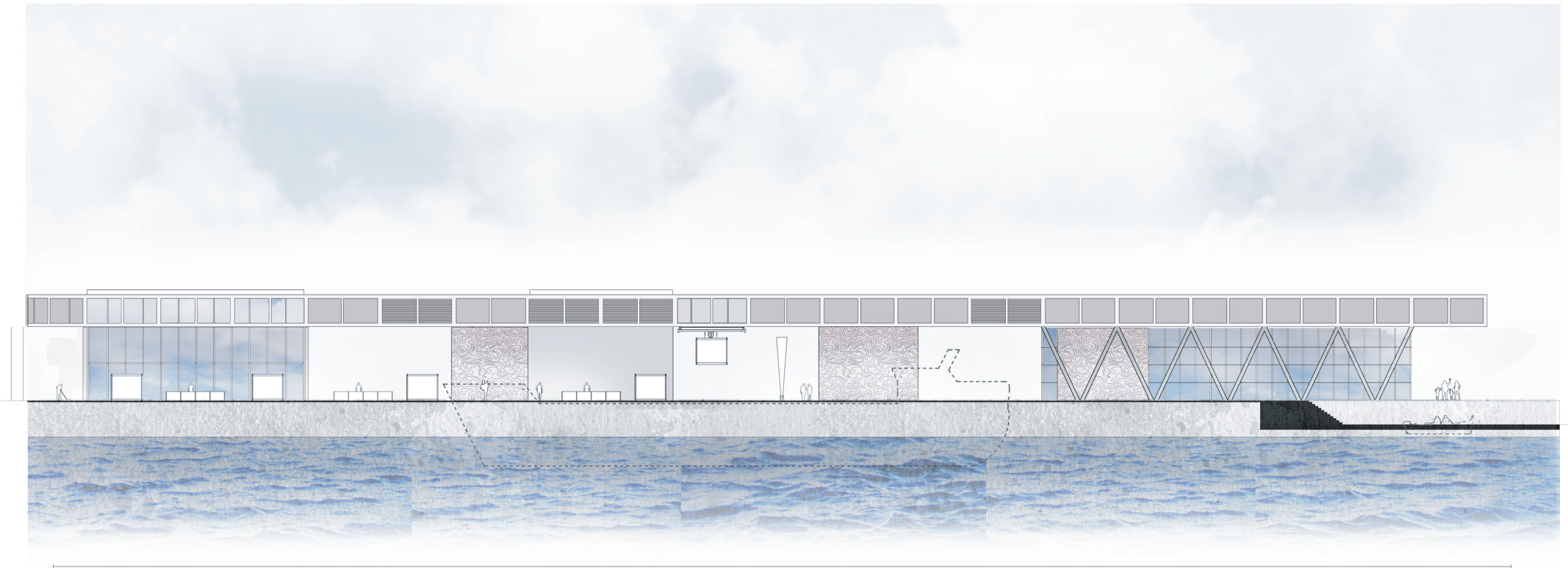
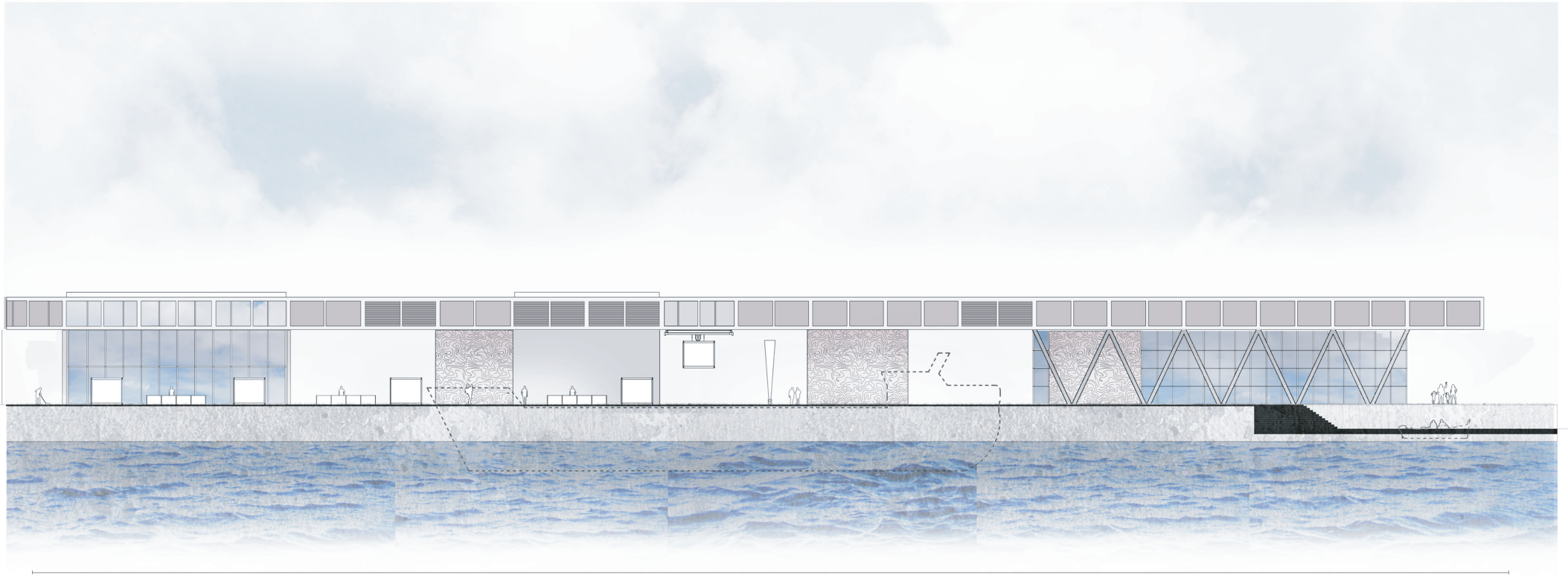


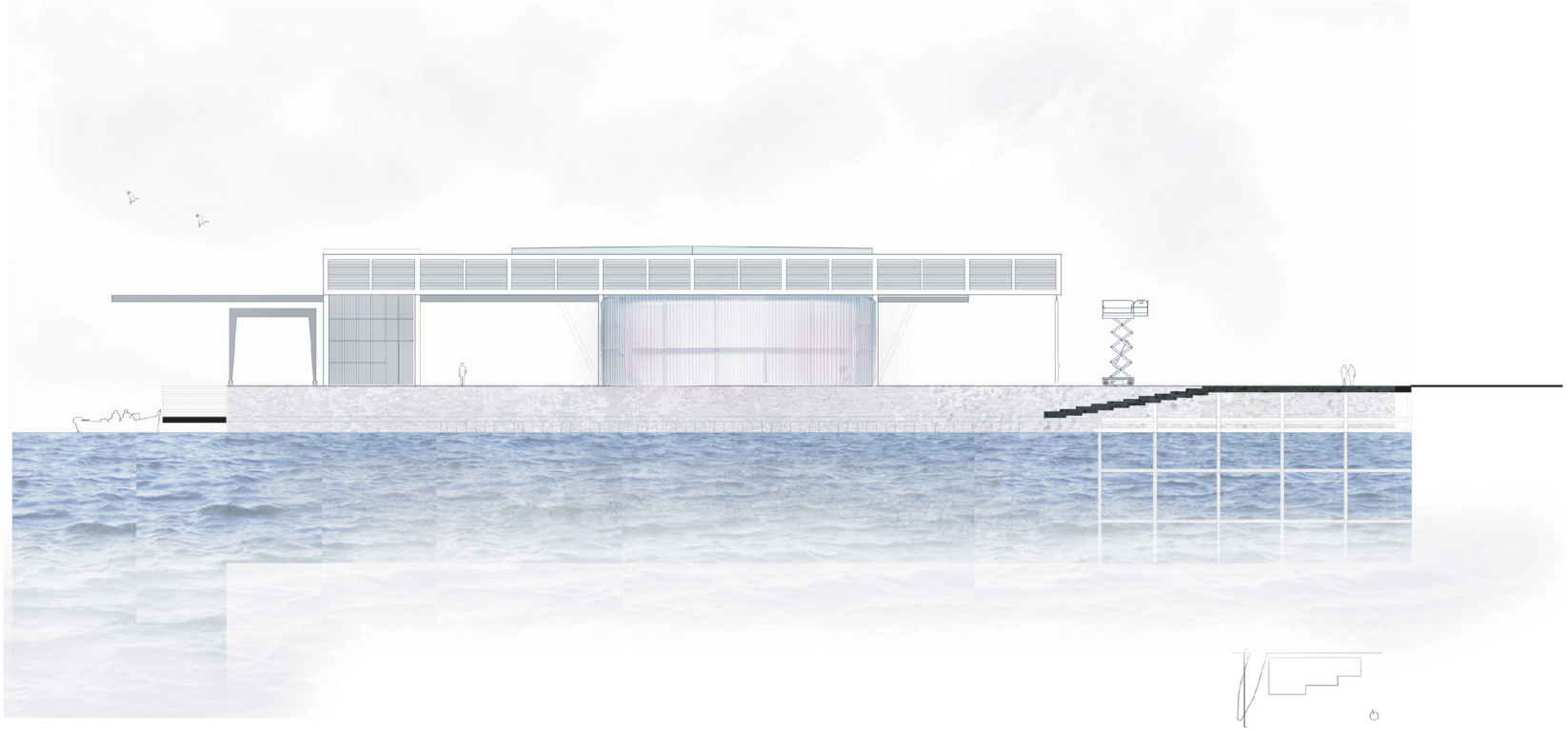
Soutfacade. 1:200

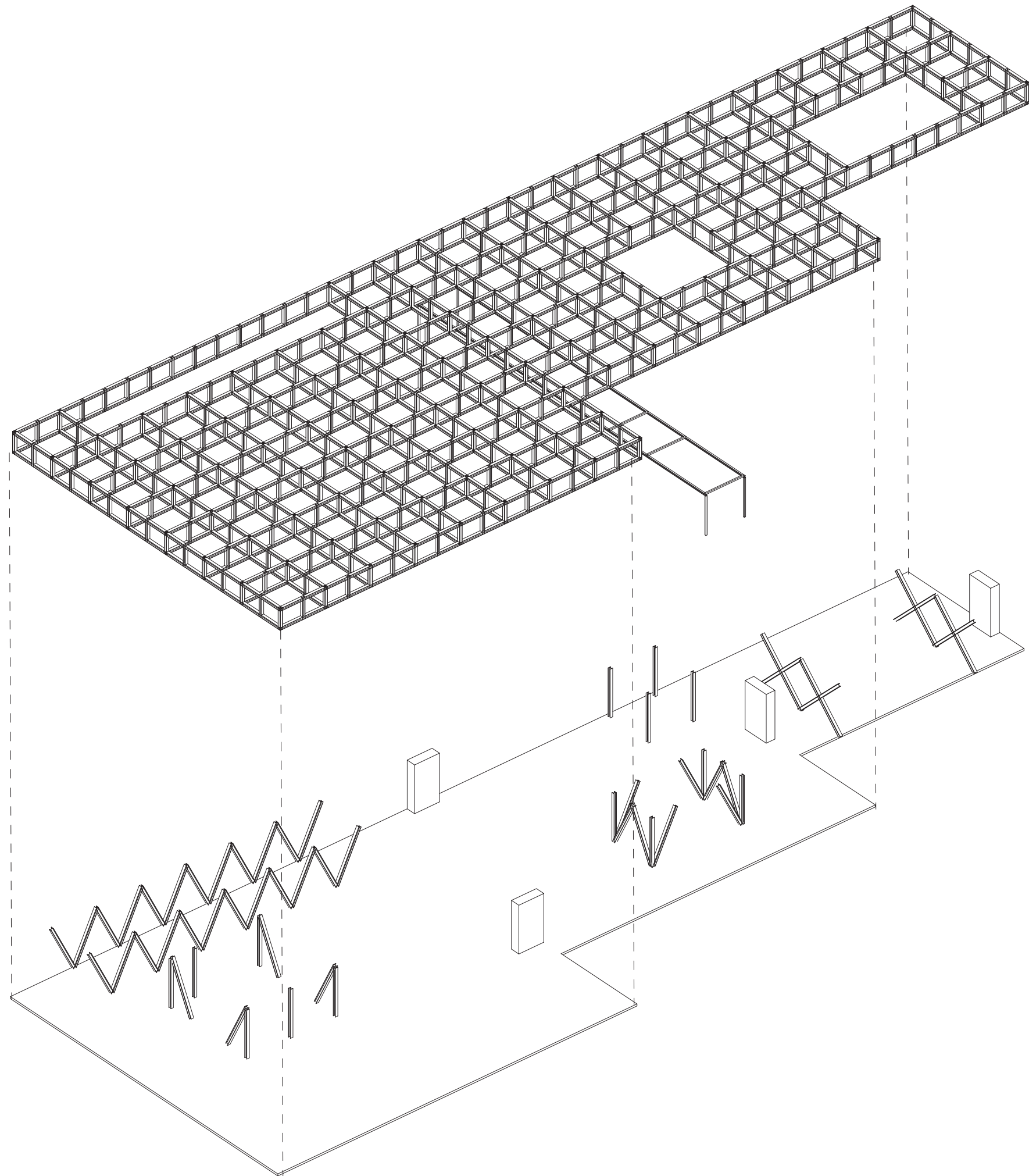


North facade. 1:200

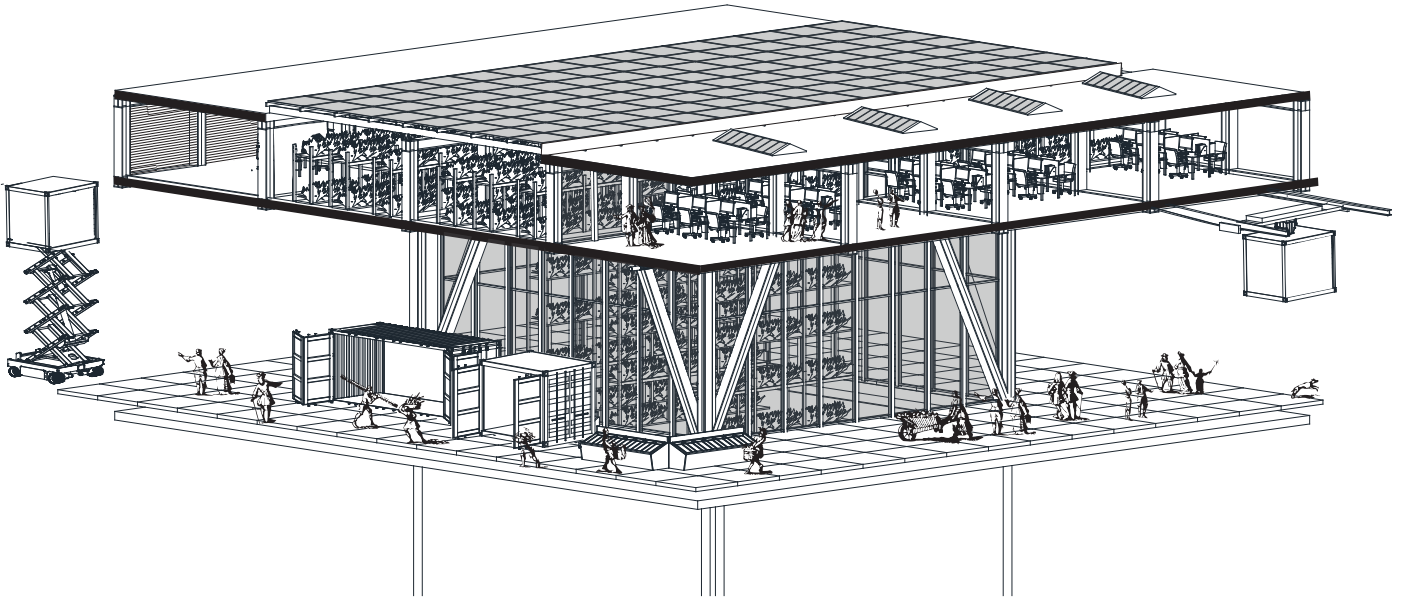


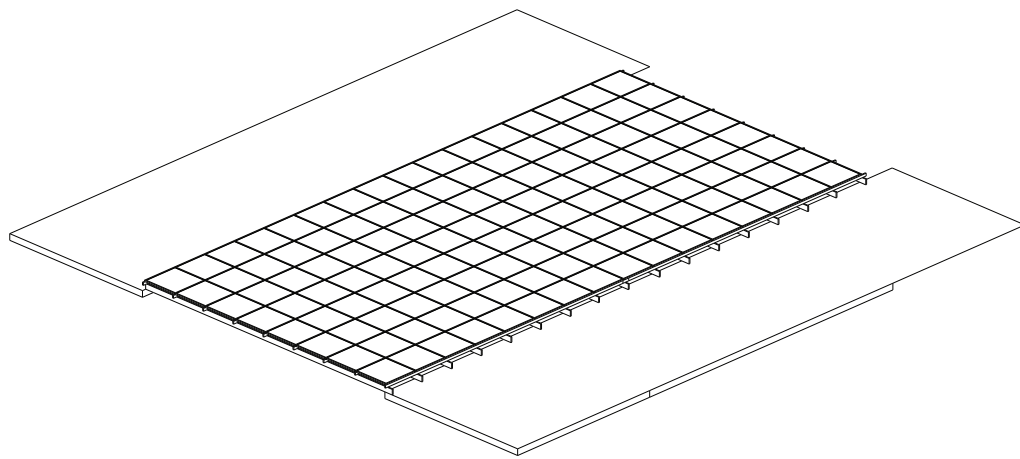
North facade. 1:200



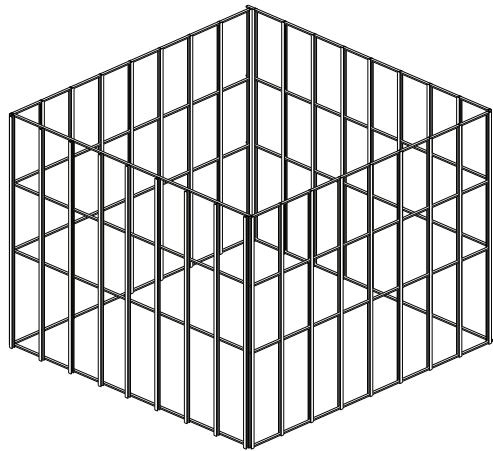


structural diagram / vierendeel sitting in columns

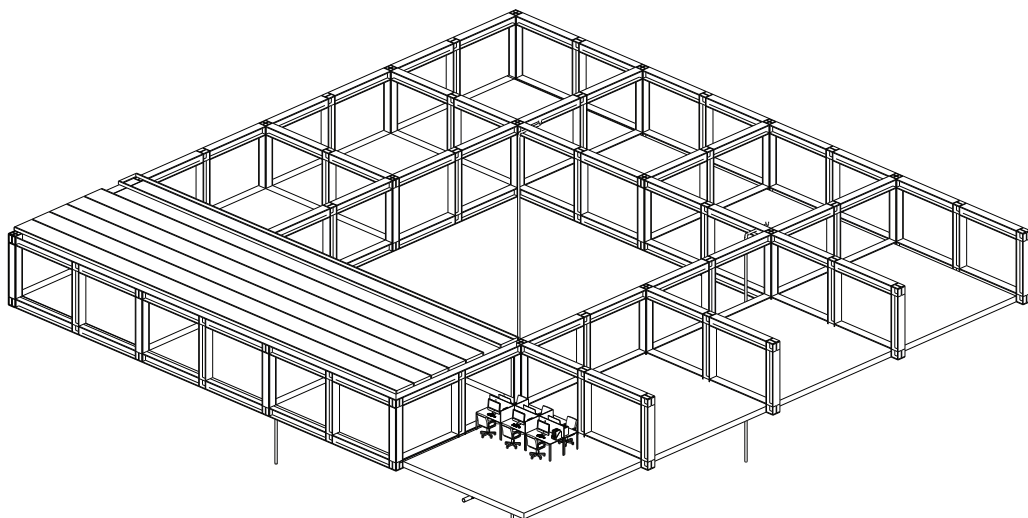




Roof slab: lignatur sits on Vierendeel structure
 Roof glassing: double glass sits on laminated veneer lumber beam

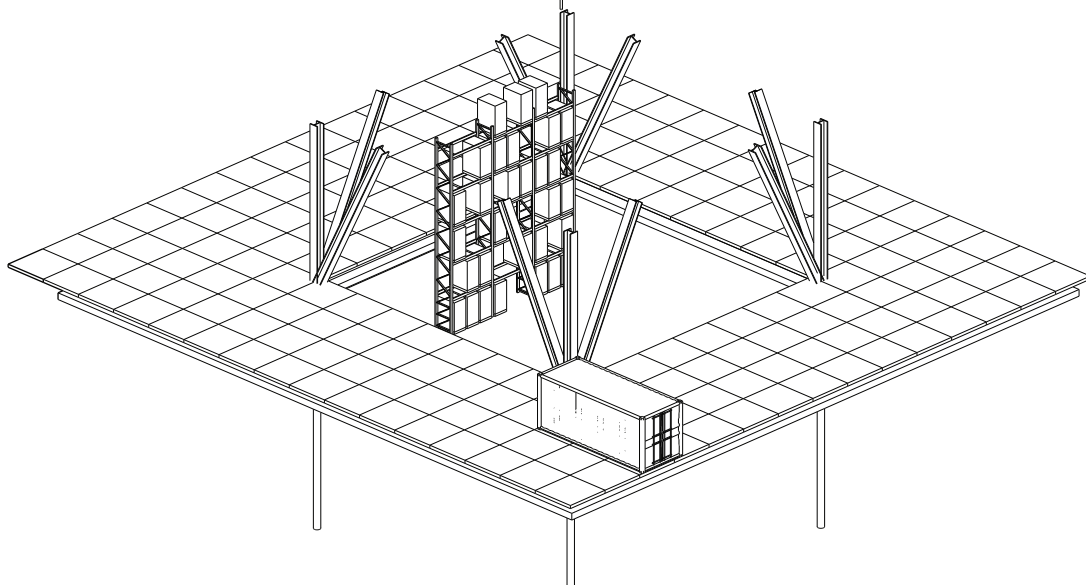


The curtain wall is holded by steel profiles
 independently of the Vierendeel structure



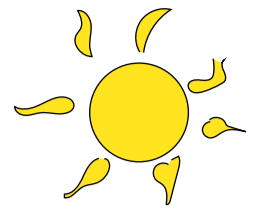
Vierendeel structure is made out of IPE beams;
 the elements are bolted

A wood roof element (lignatur) sits on Vierendeel to
 for the middle floor slab



Stelcon plates sit on sand to hold strong loads

Profound cimentation of pilotis because of the sandy terrain



summer

NORTH

SOUTH

stack effect for ventilation

stack effect for ventilation operable air outlet in parapet

stop greenhouse effect operable curtain [a.k.a dak zonwering]

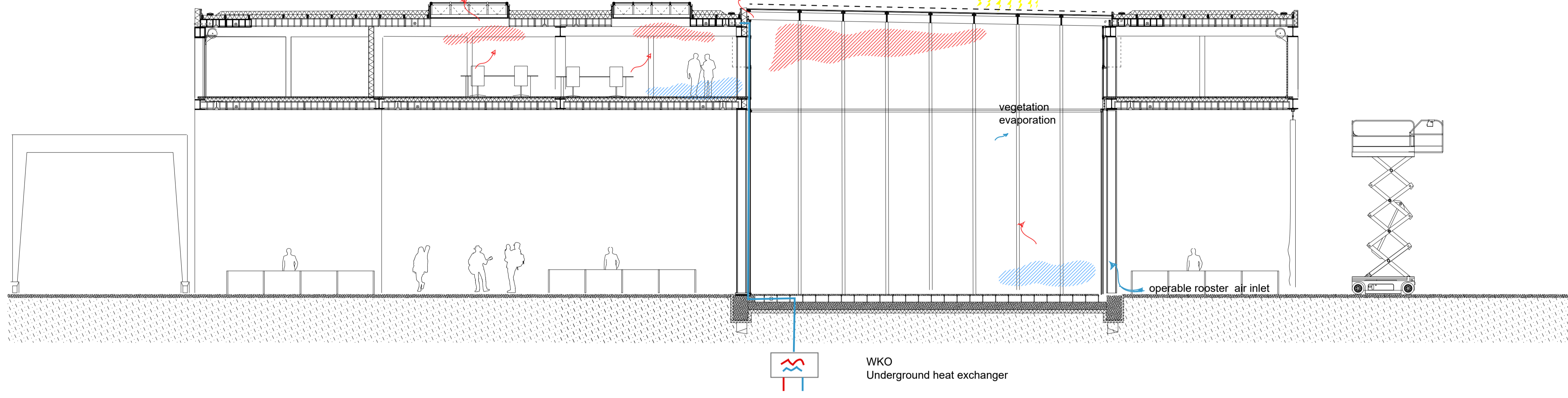
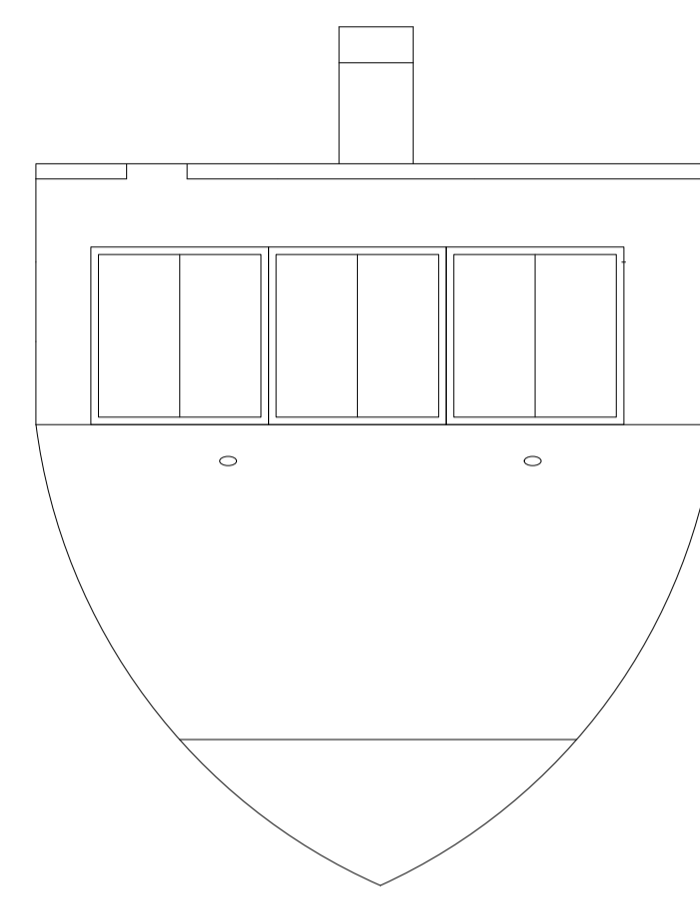
electricity harvesting pv cells integrated in the roof-glass

operable window

vegetation evaporation

operable rooster air inlet

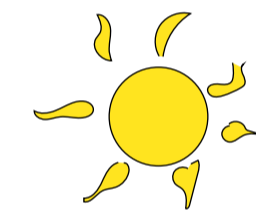
WKO Underground heat exchanger



winter

NORTH

SOUTH



heat accumulated in greenhouse is used to passively warm the work space

collection of rain water

one source of heating is underfloor gas warming

additional heating can be provided by WKO

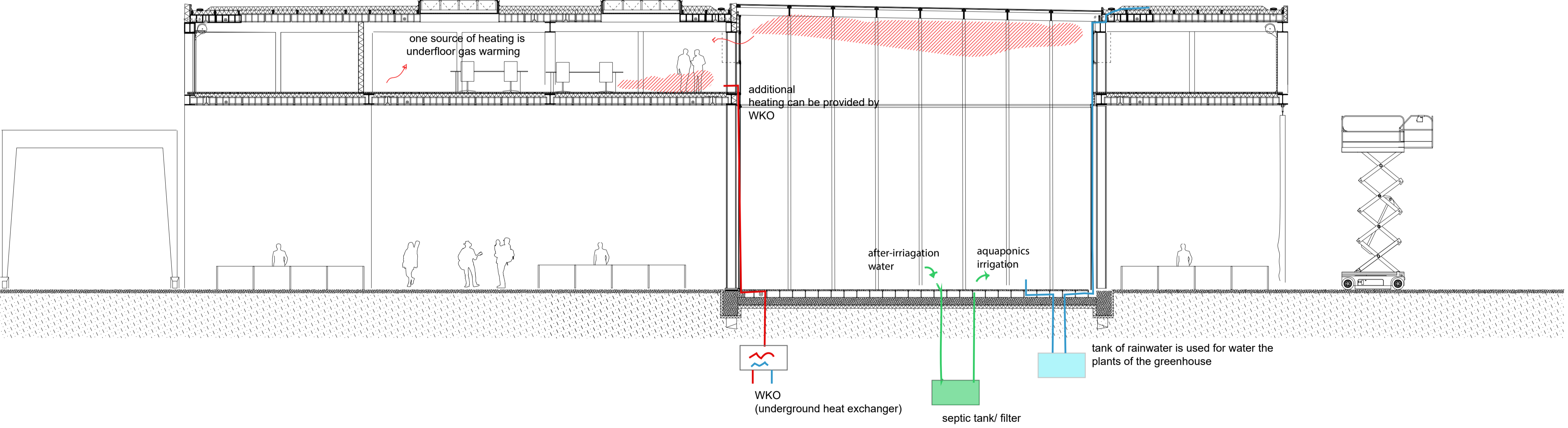
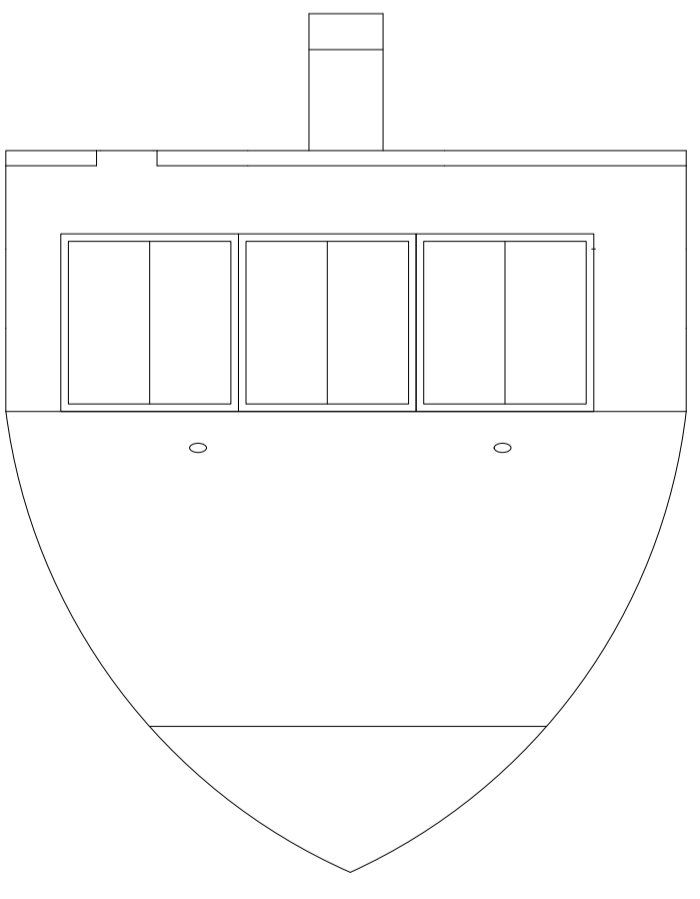
after-irrigation water

aquaponics irrigation

tank of rainwater is used for water the plants of the greenhouse

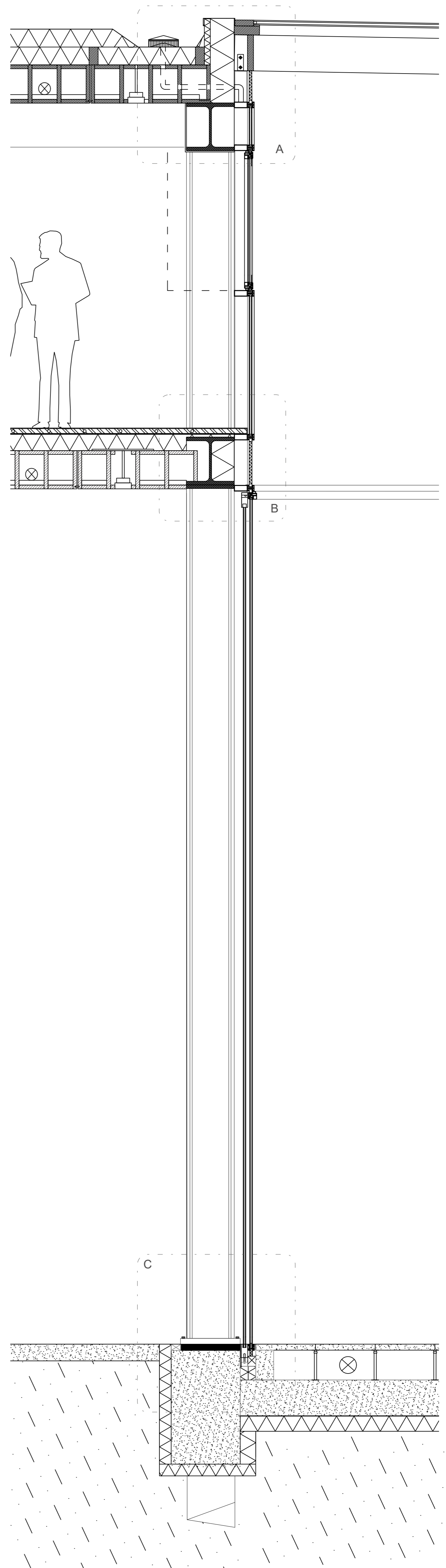
WKO (underground heat exchanger)

septic tank/ filter



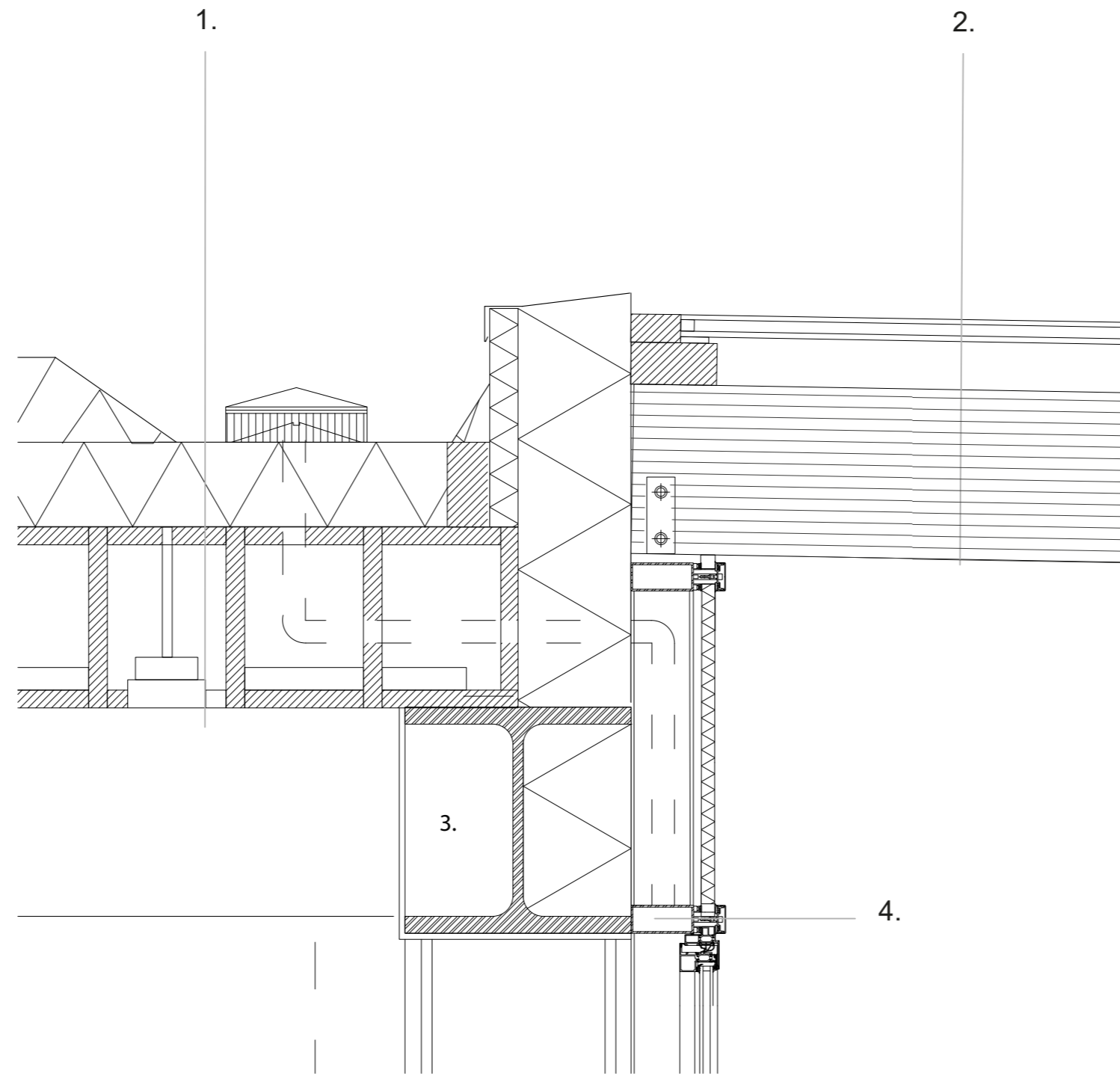


Facade fragment
1:20



Section fragment
1:20

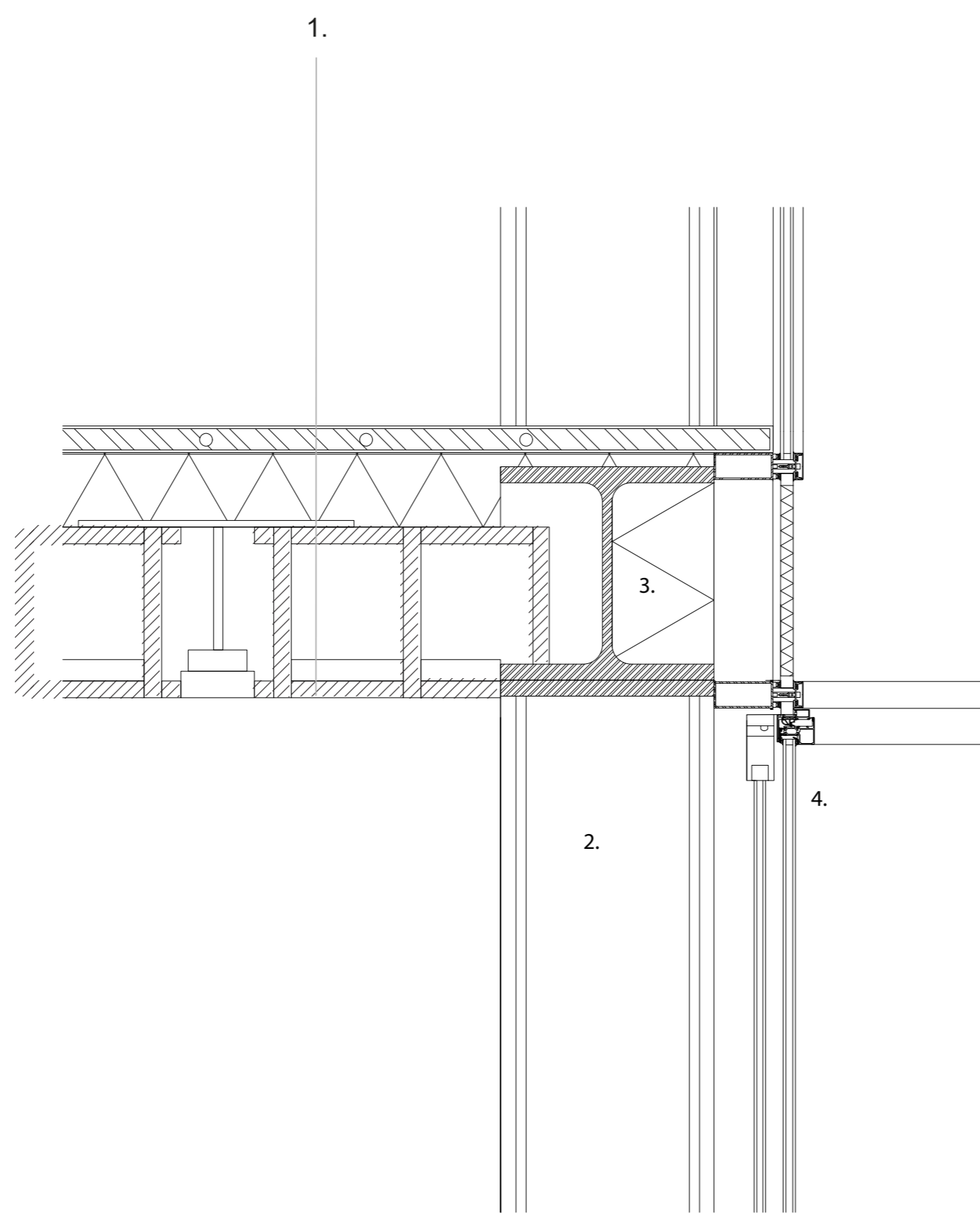
water drain
 waterproof layer
 mineral wool
 200mm
 timber stuts as insulation structure
 150*50mm
 roof: lignature roof element (sustainable wood)
 height 260. Internal noise insulation
 Vierendeel Structure
 Fireproof layer
 I-beam profile 400mm



- 2. Double glazing openable window sit on neoprene gasket
 Vertical wood substructure to receive glazing
 Horizontal wood substructure: laminated veneer lumber beam 150mm
- 3. IPE 250
- 4. Curtain wall
 Steel curtain wall profile sit on substructure. Double glazing
 Horizontal. Hollow structure profile. 120*60
 to receive curtain wall profile
 Steel IPE 120 as vertical substructure.

Detail roof
 1:10

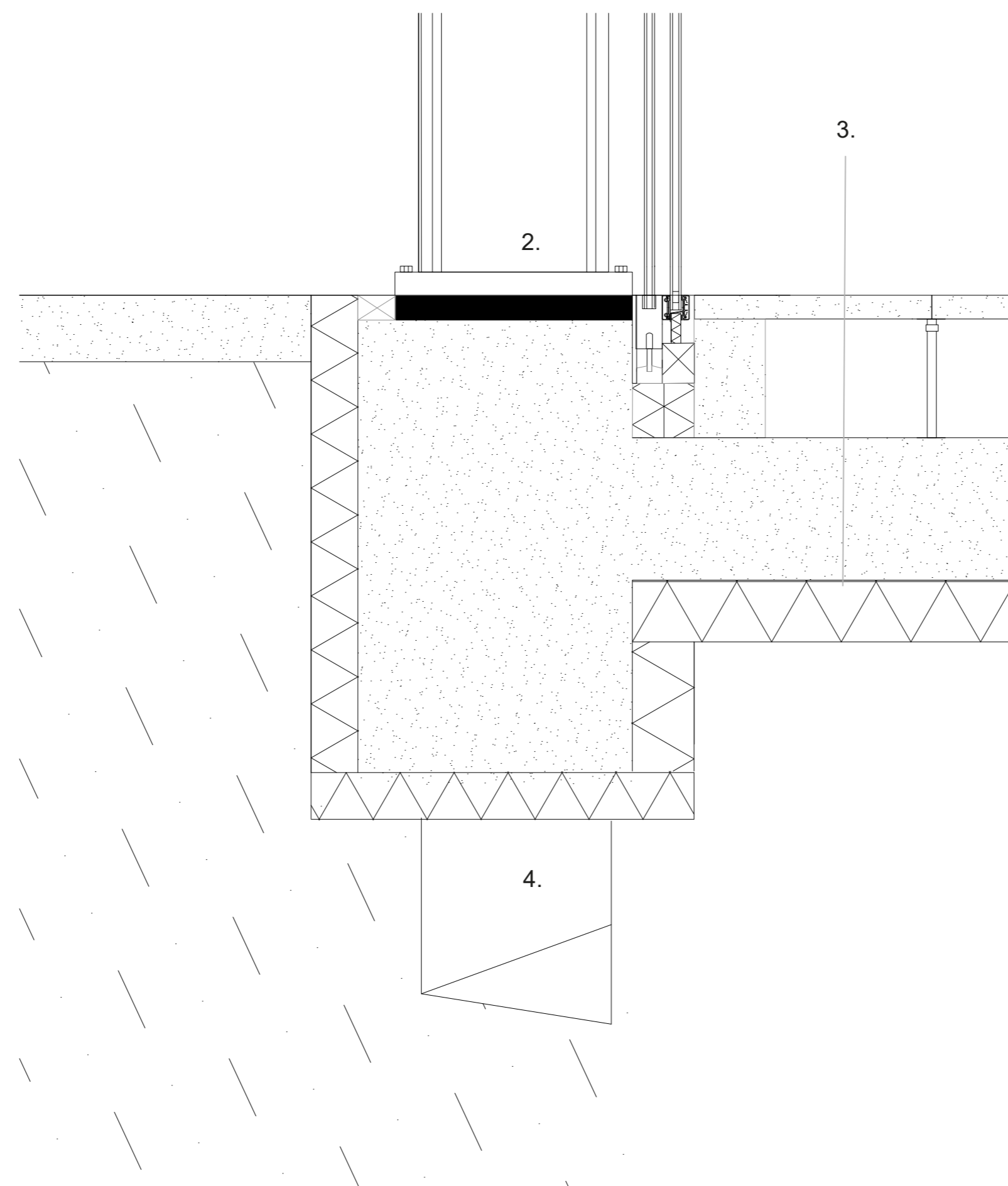
1. Floor finishing. 500 mm
 underfloor gas heating pipes
 Insulation 150 mm
 roof: lignature roof element (wood)
 height 260mm. Internal insulation
 internal installations
 2. Column. IPS 400



- 3. Vierendeel structure.
 IPE 250 receiving the roof element
- 4. Sliding door
 Special profile attached to curtain wall.

Detail middle slab
 1:10

1. Prefabricated concrete plate "Stelcon"
 height 160mm
 Sit on sand.
 2. Column screwed on plate
 sit on concrete
 4. pilotis foundation



- 3. Raised floor
 Steel pedestals to receive floor / installation space
 attached to the concrete slab
 Concrete Slab 300 mm
 Insulation 120mm

Detail foundation
 1:10